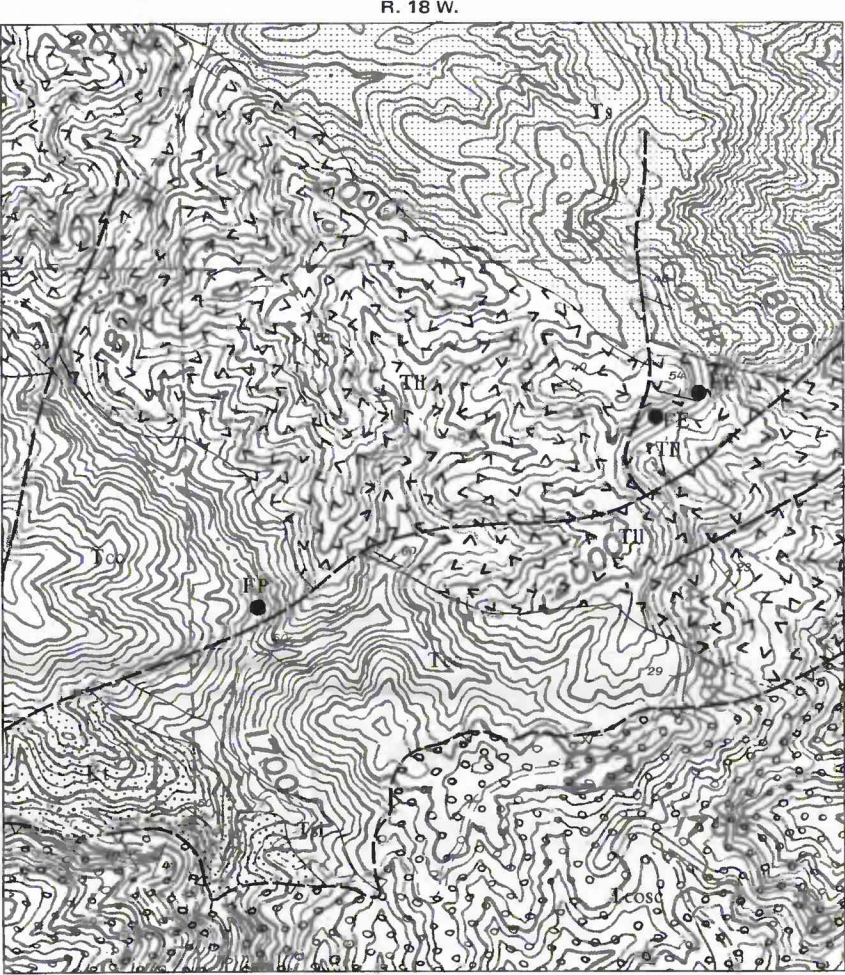
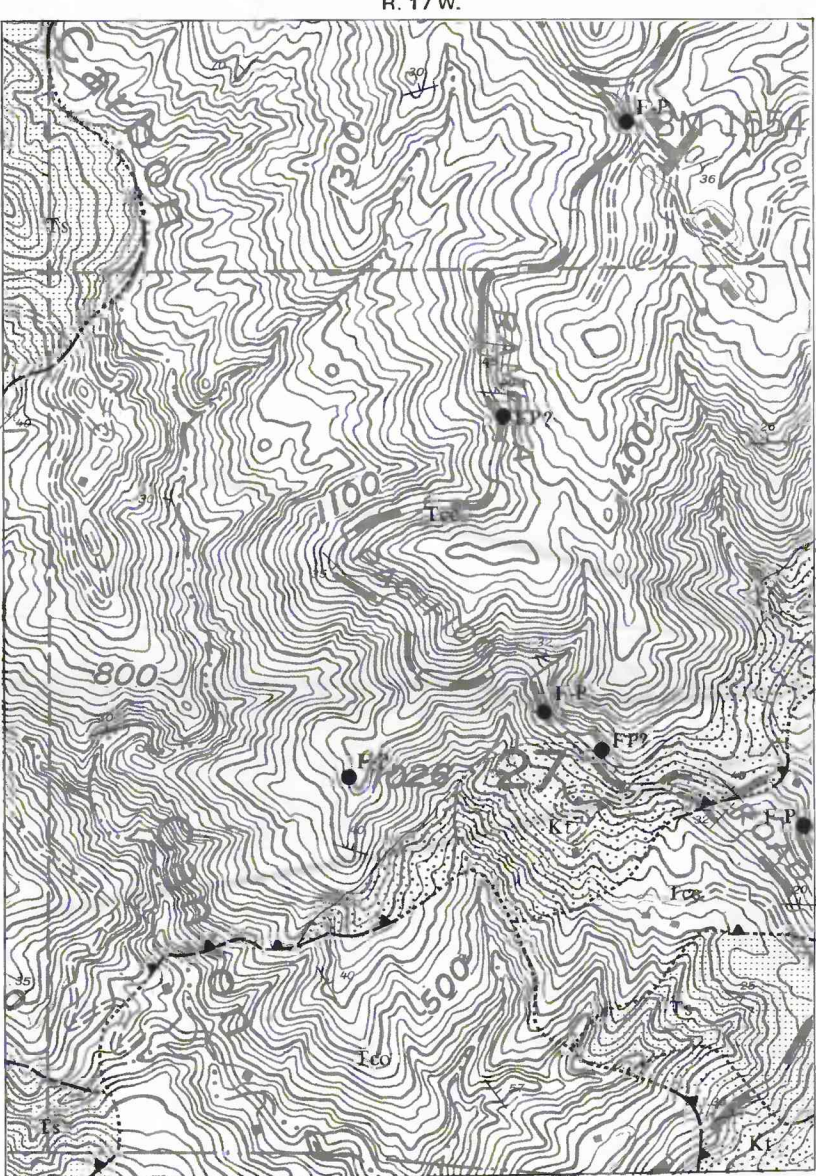


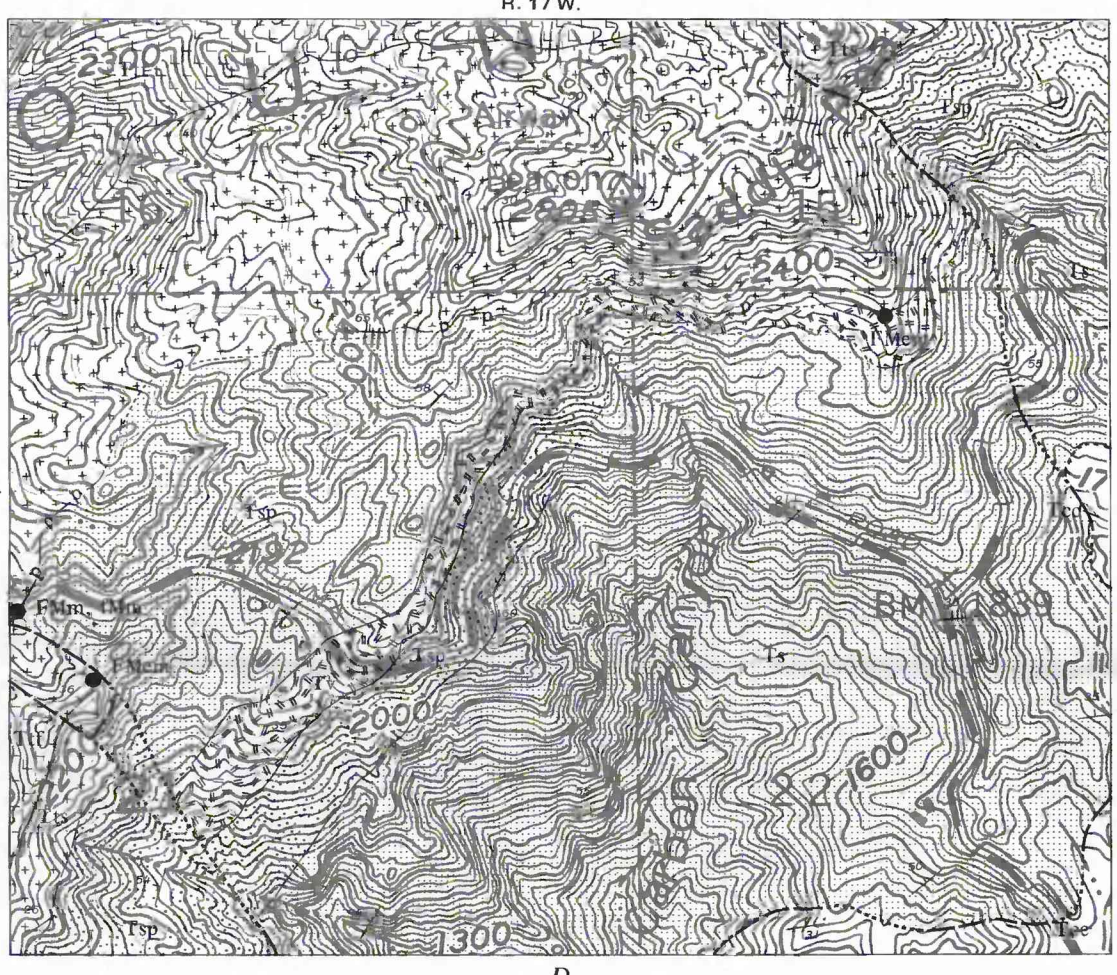
Tuna Canyon Formation in the Pena Canyon-Tuna Canyon area, Topanga 7 1/2 minute quadrangle. Kt, Tuna Canyon Formation; Tcc, Coal Canyon Formation; Ts, Sepe Formation; Tt, Topanga Canyon Formation; Tl, intrusive rocks. Localities of mollusk collections referred to the Campanian Stage (Late Cretaceous) indicated by symbol F-K. Modified from Yerkes and others, 1973.



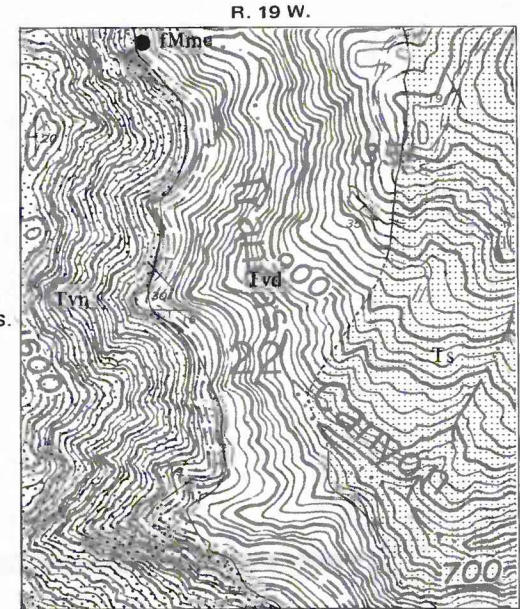
Simu(?) Conglomerate and the Lajas(?) Formation, lower plate of the Malibu Bowl fault (indicated by sawteeth), upper Solstice Canyon, Point Dume 7 1/2 minute quadrangle. Lower plate: Kt, Tuna Canyon Formation; Ts, Simu(?) Conglomerate; Tcc, Coal Canyon Formation; Tl, Lajas(?) Formation; Ts, Sepe Formation. Upper plate: Tcc, Solstice Canyon Tongue, Conejo Volcanics, FP, locality of mollusk collection referred to the "Martinez" Stage (early Paleocene) of Weaver and others (1944); FE, locality of mollusk collection referred to the "Domínguez" Stage (middle Eocene) of Weaver and others (1944). Modified from Campbell and others (1970).



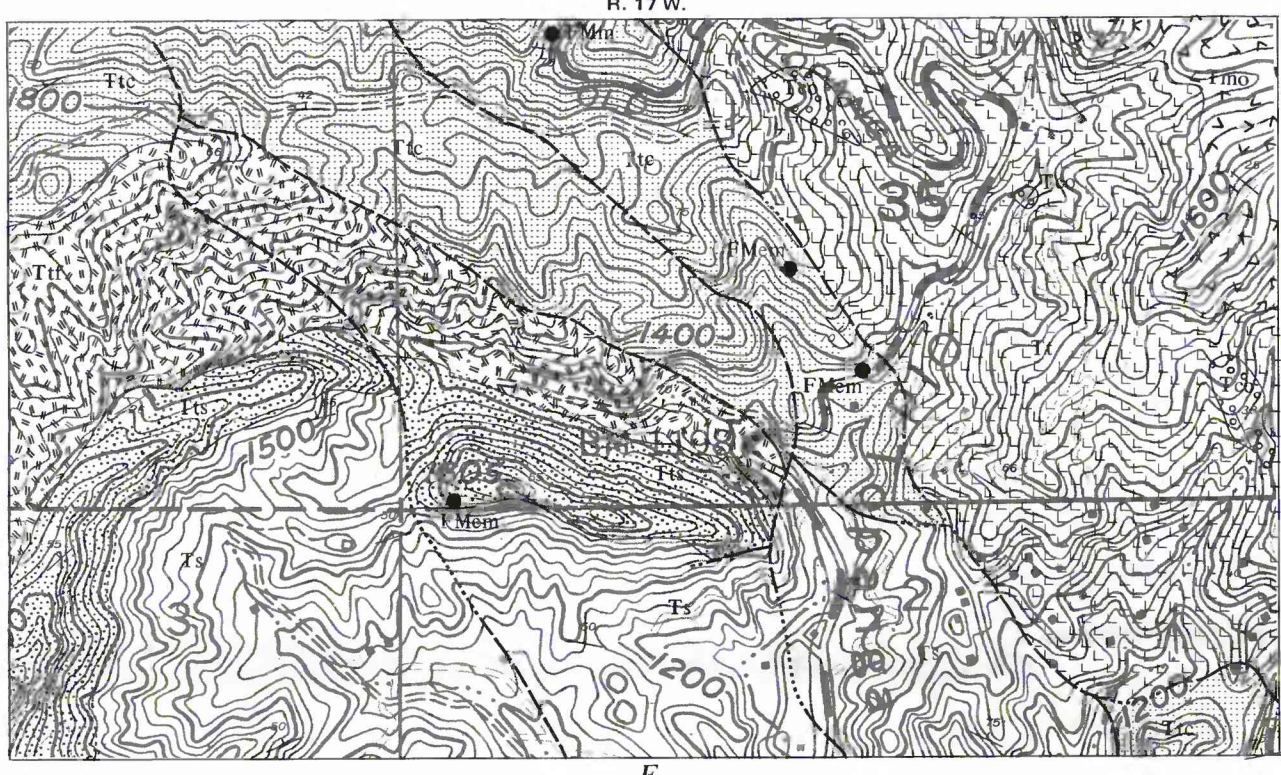
Coal Canyon Formation in the Carben Canyon area, Malibu Beach 7 1/2 minute quadrangle. Kt, Tuna Canyon Formation; Tcc, Coal Canyon Formation; Ts, Sepe Formation; Tcc, Conejo Volcanics. Localities of mollusk collections referred to the Martinez Stage (early Paleocene) of Weaver and others (1944) indicated by symbol F-P. Modified from Yerkes and others (1971).



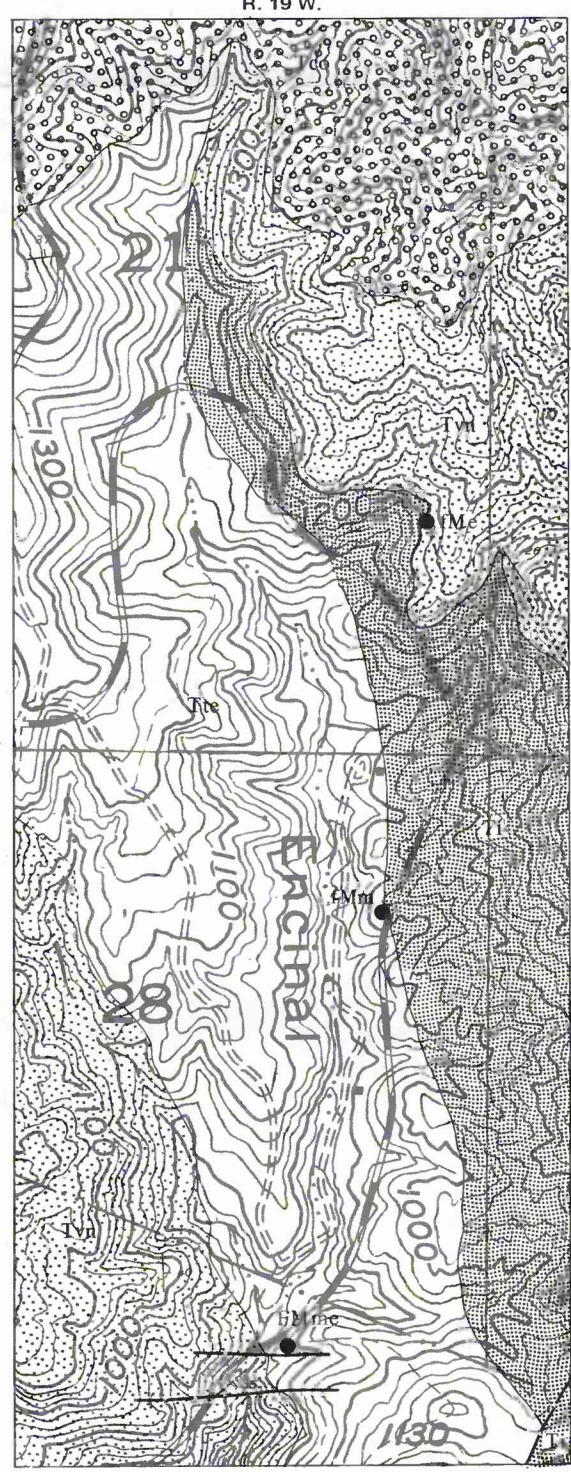
Piura Member of the Sepe Formation to the Vaqueros Formation and the Saddle Peak Member of the Topanga Canyon Formation, Piura Road-Saddle Peak area, Malibu Beach 7 1/2 minute quadrangle. Tcc, Coal Canyon Formation; Ts, Sepe Formation; Tt, Saddle Peak Member; Tl, intrusive rocks. Localities of mollusk collections referred to the early or middle Miocene indicated by symbol FMem; symbol -p- at base of Saddle Peak Member, Topanga Canyon Formation indicates abundant values of *Foraminifera nebulosa*, referred to the Vaqueros and Temblor stages (early and middle Miocene) of Weaver and others (1944). Modified from Yerkes and others (1971).



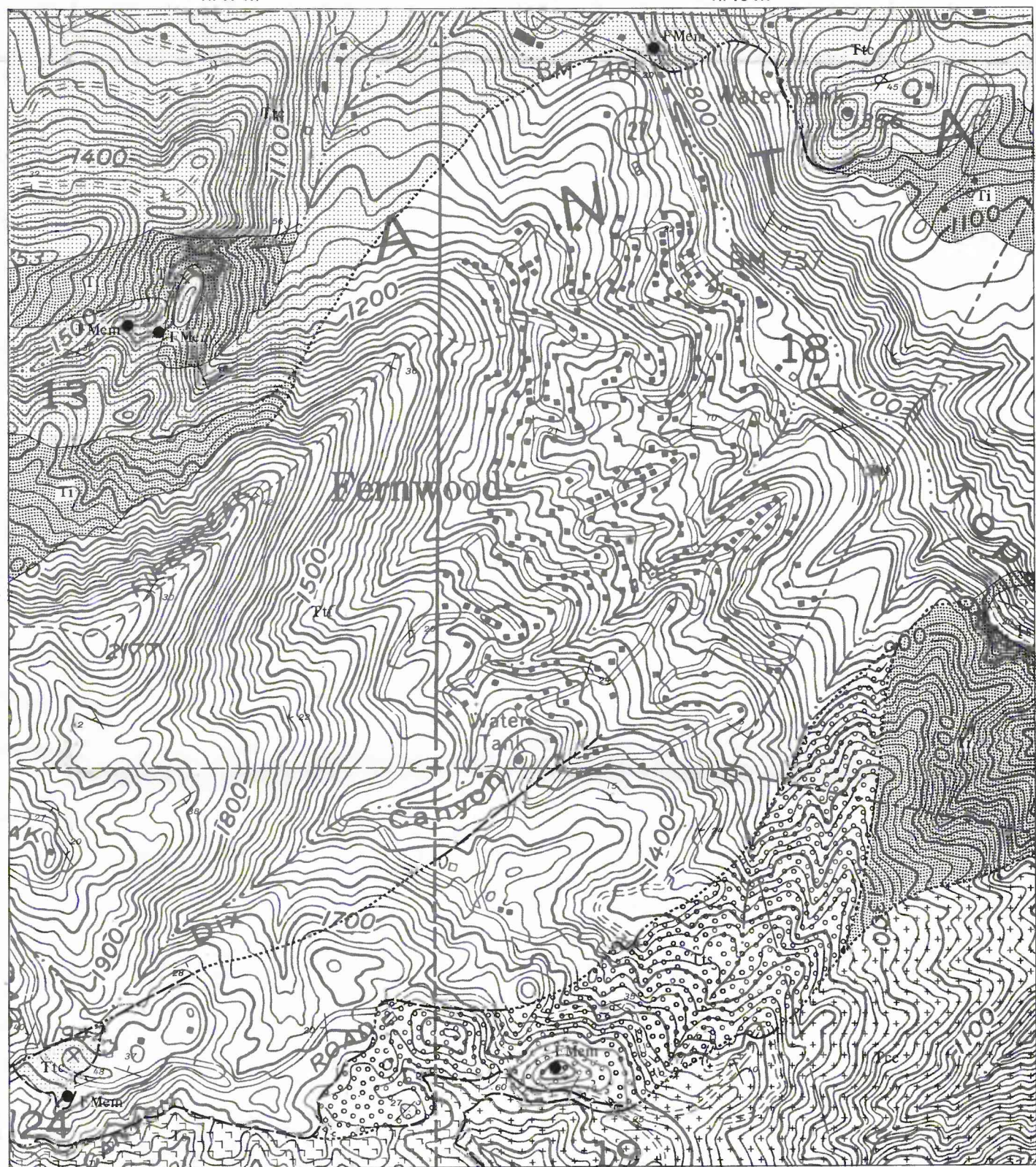
Danilston (Tvd) and San Nicholas (Tvn) Members of the Vaqueros Formation, in upper Trancas Canyon, Point Dume 7 1/2 minute quadrangle. Ts, Sepe Formation; Tt, Saddle Peak Member; Tl, intrusive rocks. Localities of mollusk collections referred to the middle or early Miocene. Modified from Campbell and others (1970).



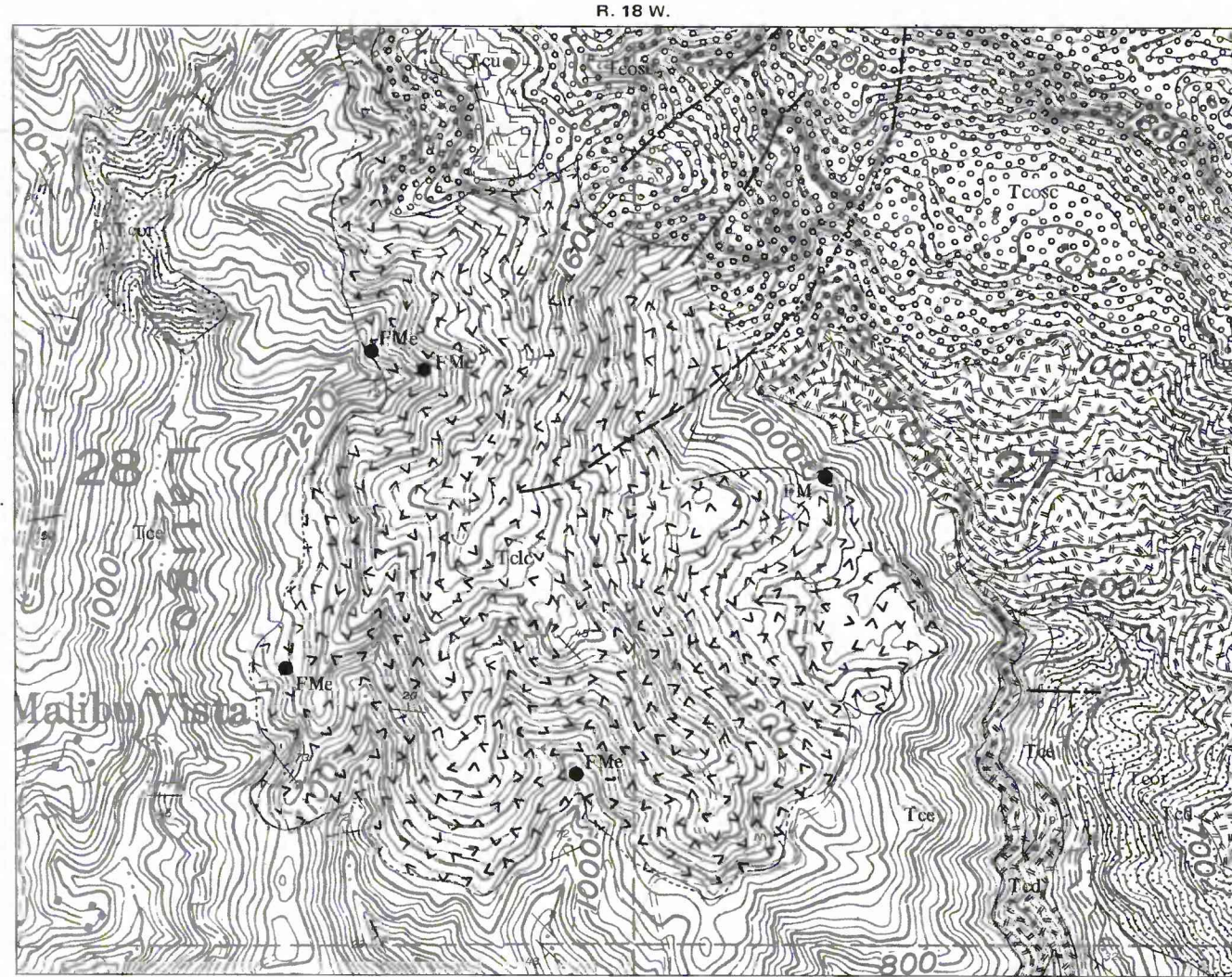
Cold Creek, Fernwood, and Saddle Peak Members, Topanga Canyon Formation, in the area of the "Topanga" fauna (locality FMm at north center) and Old Topanga Road, northeast corner of the Malibu Beach 7 1/2 minute quadrangle. Ts, Sepe Formation; Topanga Canyon Formation: Tt, Saddle Peak Member; Tl, Fernwood Member; Tc, Cold Creek Member; Tt, Topanga Canyon Formation, undivided. Tcc, Conejo Volcanics; Tmo, Modelo Formation. FMm, locality of mollusk collection referred to the middle Miocene; FMem, localities of mollusk collections referred to the early or middle Miocene. Modified from Yerkes and others (1971).



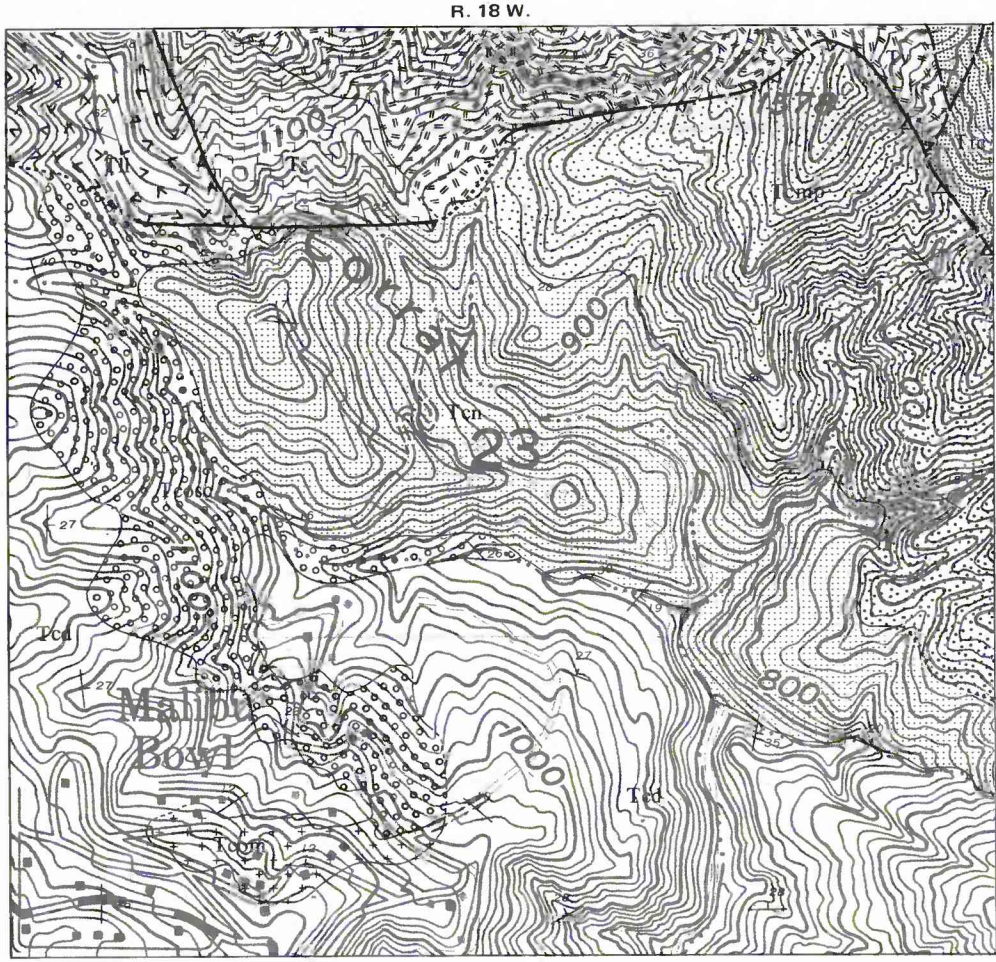
Encinal Member, Topanga Canyon Formation, in lower Encinal Canyon, Point Dume 7 1/2 minute quadrangle. Tvn, San Nicholas Member, Vaqueros Formation; Tte, Encinal Member, Topanga Canyon Formation; Tcc, Conejo Volcanics; Tl, intrusive rocks; FMm, locality of microfossil collection referred to the early or middle Miocene; FMc, microfossil collection referred to the middle Miocene; FMm, microfossil collection referred to the middle Miocene. Modified from Campbell and others (1970).



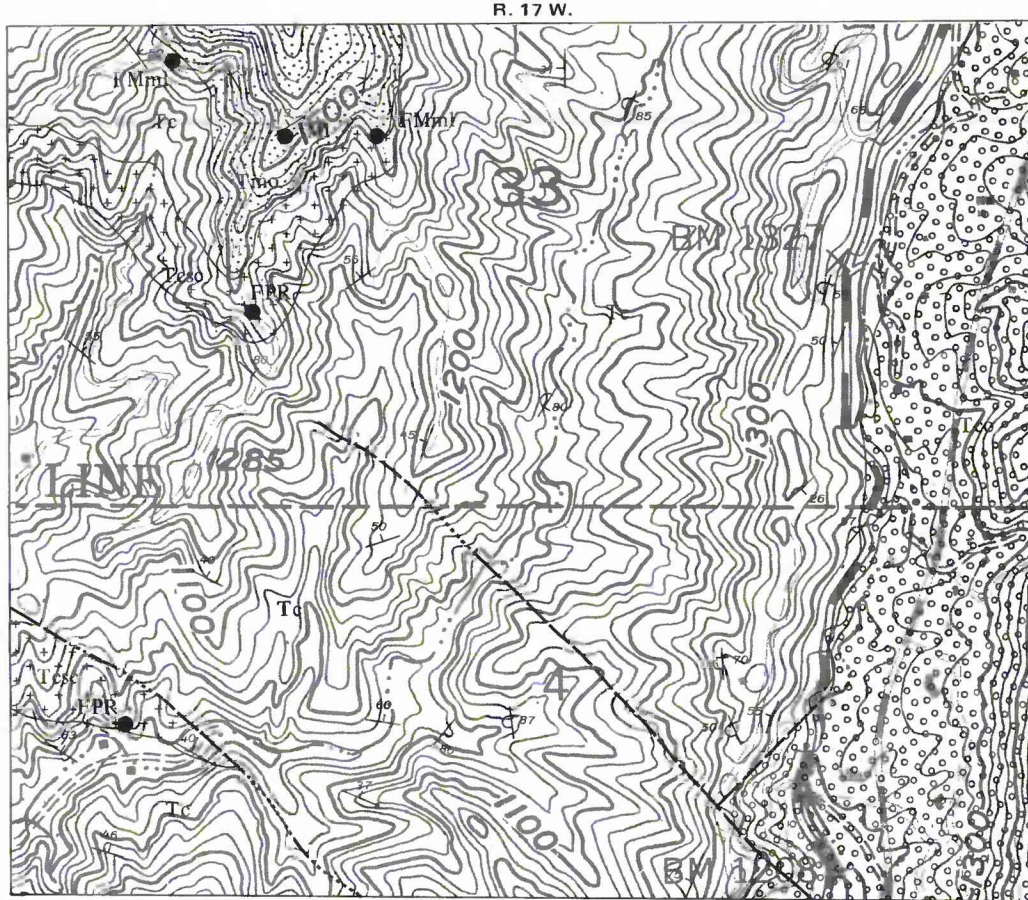
Fernwood and adjoining members of the Topanga Canyon Formation in the Fernwood area, Topanga 7 1/2 minute quadrangle. Tcc, Coal Canyon Formation; Ts, Sepe Formation; members of Topanga Canyon Formation: Tt, Cold Creek; Tt, Fernwood; Tt, Saddle Peak, Tl, intrusive rocks; FMem, FMm, localities of microfossil collections referred to the early or middle Miocene, and middle Miocene, respectively. Modified from Yerkes and others (1973).



Conejo Volcanics and Calabasas Formation in the upper plate of the Malibu Bowl detachment fault, Point Dume 7 1/2 minute quadrangle. Members of the Conejo Volcanics: Tcc, Ramera Canyon Tongue; Tcc, Solstice Canyon Tongue; Calabasas Formation includes: Tcc, Escudido Canyon Shale Member; Tcd, Dry Canyon Sandstone Member; Tcc, Latigo Canyon Breccia Member; Tcc, correlation uncertain. FM, FMc, localities of microfossil collections referred to the Miocene and early Miocene, respectively. Modified from Campbell and others (1970).



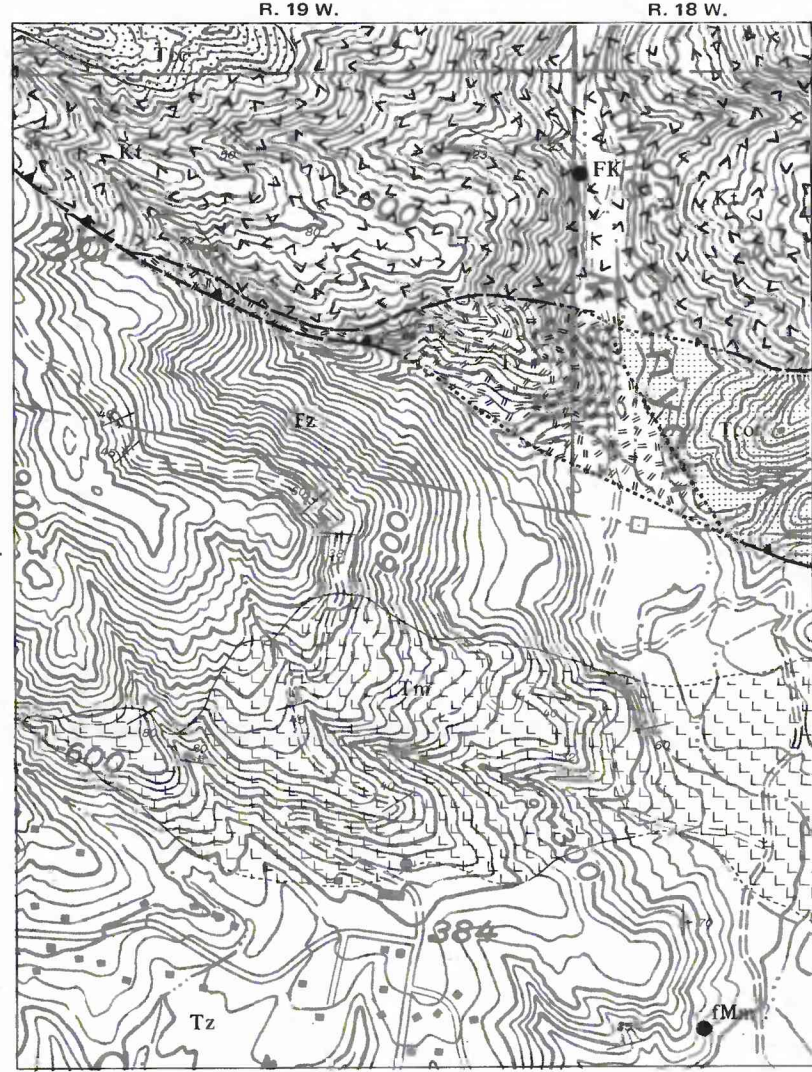
Dry Canyon Sandstone, Newell Sandstone, and Mesa Peak Breccia Members of the Calabasas Formation and Malibu Bowl and Solstice Canyon Tongues of the Conejo Volcanics, Malibu Beach 7 1/2 minute quadrangle. Lower plate of the Malibu Bowl fault (shown by open sawteeth): Tt, Lajas(?) Formation; Ts, Sepe Formation; Tt, Vaqueros Formation; Tt, Topanga Canyon Formation. Upper plate: Calabasas Formation: Tcd, Dry Canyon Sandstone Member; Tcc, Newell Sandstone Member; Tcc, Mesa Peak Breccia Member; Conejo Volcanics: Tcc, Solstice Canyon Tongue; Tcc, Malibu Bowl Tongue. Modified from Yerkes and others (1971).



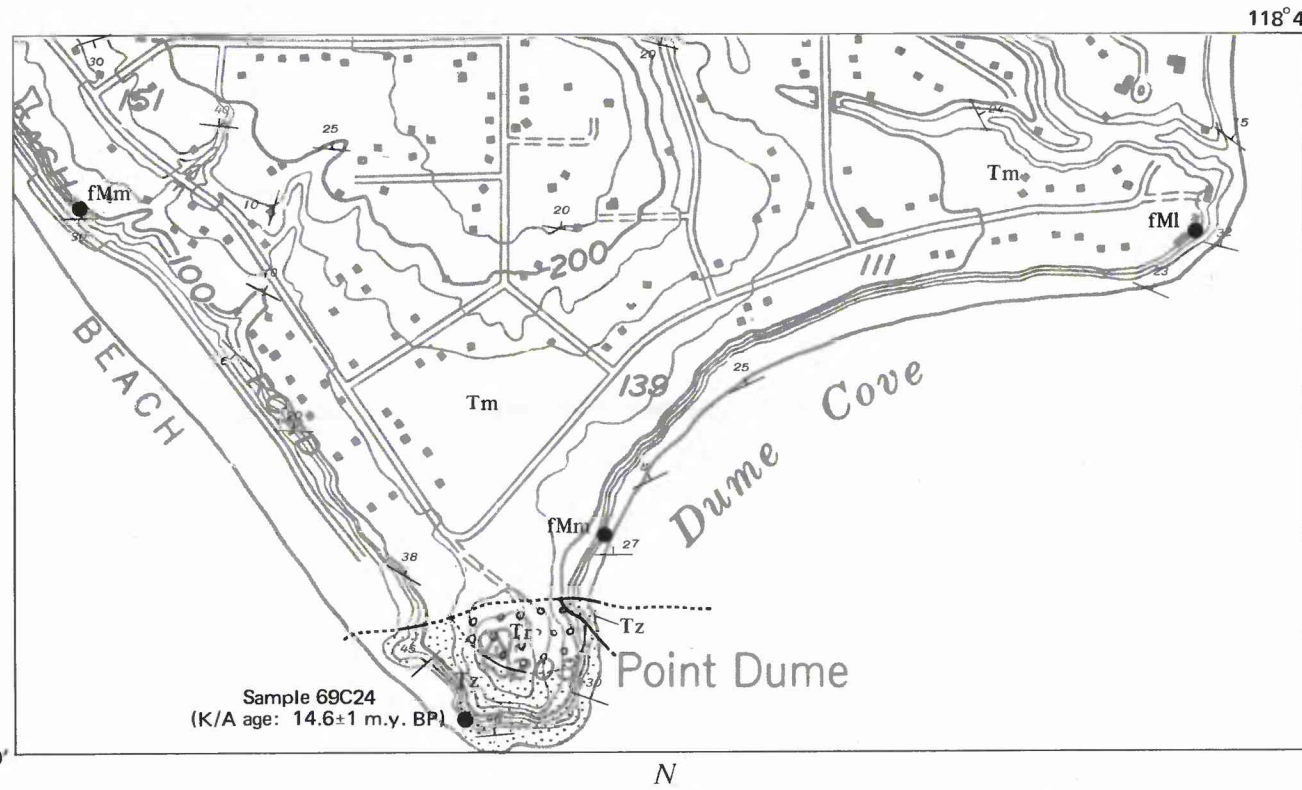
Stokes Canyon Breccia Member of the Calabasas Formation and the Conejo Volcanics in the Stokes Canyon-Cold Canyon Road area, Malibu Beach 7 1/2 minute quadrangle. Tcc, Conejo Volcanics; Tcc, Calabasas Formation; Tcc, Stokes Canyon Breccia Member of the Calabasas; Tmo, Modelo Formation. FPR, localities of mollusk collections diagnostic of the early Paleocene and middle Eocene, redeposited as part of the Stokes Canyon Breccia Member; Fm, localities of Foraminifera collections referred to the middle (m) or late (l) Miocene; FM, localities of Foraminifera collections referred to the late Miocene. Modified from Yerkes and others (1971).



Lower plate of the Malibu Coast fault (indicated by sawteeth) in the Lechuza Point-Trancas Canyon area, southwestern Point Dume 7 1/2 minute quadrangle. Lower plate: Tt, Trancas Formation; Tt, Zuma Volcanics. Upper plate: Tcc, Coal Canyon Formation; Tt, Lajas(?) Formation; Tt, Vaqueros Formation; Tt, Encinal Member, Topanga Canyon Formation; Tmo, Mmo, Mmo, localities of microfossil collections referred to the middle Miocene or older, early Miocene, or middle Miocene, respectively. Modified from Campbell and others (1970).



Zuma Volcanics in the lower (south) plate of the Malibu Coast fault (indicated by sawteeth), south-central Point Dume 7 1/2 minute quadrangle. Lower plate: Tt, Zuma Volcanics; Tt, Monterey Shale; FMm, locality of microfossil collection questionably referred to the middle Miocene. Upper (north) plate: Kt, Tuna Canyon Formation; Tcc, Coal Canyon Formation; Tt, Vaqueros Formation; Tcc, Ramera Canyon Tongue; Conejo Volcanics; FE, locality of microfossil collection referred to the Campanian Stage, Upper Cretaceous. Modified from Campbell and others (1970).



Zuma Volcanics, Trancas Formation, and Monterey Shale in the Point Dume area, Point Dume 7 1/2 minute quadrangle. Tt, Zuma Volcanics; Tt, Trancas Formation; Tt, Monterey Shale; FMm, FM, localities of microfossil collections referred to the middle and late Miocene, respectively. Modified from Campbell and others (1970).

- EXPLANATION
- Contact
  - Dashed where approximately located; dotted where concealed
  - Fault
  - Dashed where approximately located; dotted where concealed
  - Reverse fault
  - Dashed where approximately located; dotted where concealed. Sawteeth on upper plate
  - Detachment fault
  - Dashed where approximately located; dotted where concealed. Sawteeth on upper plate
  - Strike and dip of beds
  - Strike and dip of overturned beds